STATEMENT OF WORK ENGINEERING SERVICES FOR PIPELINE INTEGRITY ASSESSMENTS AT VARIOUS LOCATIONS, WORLDWIDE N4740899D8014

I.0 SCOPEf

1.1 GENERAL

This Statement of Work describes the requirements for engineering services for pipeline integrity assessments at various locations worldwide. The emphasis of the required support will be for inspecting, installing, maintaining, and repairing ocean, cross-country, and intra-terminal Petroleum, Oil, and Lubricating (POL) pipelines and related facilities throughout the world. This support may be required in the form of project management, economic impact studies or analysis, scheduling, feasibility studies, engineering analysis, facility design, preparing project plans and specifications, geotechnical and bathymetric surveys, underwater inspections, failure analysis, surveying, internal in-line inspecting, coating and cathodic protection surveys and analysis, fabricating and installing project components, repairing and rehabilitating of pipelines and supporting structures, personnel and equipment, project logistical support, field inspecting, quality control, preparing project technical reports and drawings, preparing required permit documentation, updating and maintaining a Geographic Information Technology computerized system, and preparing project cost and progress reports.

The Contractor shall be able to provide sufficient personnel, facilities, and equipment at the time of contract award to meet the requirements of this contract. Technical competence of the Contractor in POL pipeline internal and external inspections, repair project execution, POL construction, and pipeline operations are critically important.

The specific services which the Contractor shall be required to provide shall be established by individual delivery orders to be issued by the Ordering Officer.

2.0 <u>SERVICES REQUIRED</u>

The Contractor shall furnish the required support at the times and places designated by the Ordering Officer. Such services will be furnished by the Contractor in accordance with the individual statement of work prepared for each delivery order. The Contractor may be required to respond to a delivery order with as little as seven (7) days advance notice before the commencement of operations involving facilities and equipment and as little as twenty-four (24) hours advance notice for operations requiring support personnel (i.e., craftsman, technicians, and engineers). Performance shall not commence without the issuance of a delivery order authorized by the Ordering Officer.

2.1 The Contractor shall provide all labor, equipment and facilities as required to perform the work as described in the individual delivery orders. Expected requirements of this contract shall include, but not be limited to, the following typical project requirements:

- 2.1.1 Engineering studies involving pipeline systems, including inspecting on-land and underwater POL pipelines and fuel piers, gathering data, identifying significant issues, developing the appropriate methods for their internal and external inspection, identifying required retrofits, and preparing procedures for the installation of requisite pipeline components such as valves, pumps, flanges, tow access, spools, valve pits, and other retrofits.
- 2.1.2 Inspection and engineering assessments of piers and other pipeline supporting structures.
- 2.1.3 Preparation of cost estimates, life cycle cost analyses, economic analyses, and construction and installation schedules.
- 2.1.4 Preparation of environmental studies in support of permit applications to federal, state, and local agencies.
- 2.1.5 Engineering studies involving appropriate materials for the environment, including consideration of corrosion, fatigue, and geotechnical phenomenon.
- 2.1.6 Inspection, engineering assessments and installation of leak detection and cathodic protection systems.
- 2.1.7 Preparation of maintenance plans and development of shop drawings.
- 2.1.8 Construction of repairs, upgrades, retrofits, and modifications to POL pipelines, pipeline components, and fuel piers and other supporting structures.
- 2.1.9 Performance of pressure tests, pigging operations, and other POL pipeline integrity assessments.
- 2.1.10 Performance of engineering and construction quality assurance of pipeline systems, fuel piers, documentation, processes, and procedures.
- 2.1.11 Performance of updating and maintaining a Geographic Information Technology computerized system.
- 2.1.12 Oral and written presentations of the above tasks.

3.0 REQUIREMENTS

3.1 <u>CONTRACTOR REQUIREMENTS</u>

3.1.1 Provide specified services of the type described in Section 2.0 of this Statement of Work which meet the requirements of this contract and the individual delivery orders issued hereunder.

- 3.1.2 Travel to various Government activities and other locations as required by individual delivery orders to perform project planning, design, analysis, fabrication, inspection, construction, maintenance and repair of POL pipeline projects. Travel will include, but not be limited, to selected project sites worldwide. Travel to project sites may be required as part of several tasks anticipated during the period of this contract. Program reviews may be held in Washington, DC; Alexandria, Virginia; Port Hueneme, California, or at other locations in the United States. The Contractor may be required to attend program reviews as stipulated in individual delivery orders.
- 3.1.3 Provide progress reports, financial reports, technical reports, drawings, and other plans, manuals, or documentation of a nature and frequency as specified by the contract and individual delivery orders.

3.2 GOVERNMENT REQUIREMENTS

- 3.2.1 Provide definitive requirements for work as specified by individual delivery orders.
- 3.2.2 Provide technical clarification of delivery order requirements.
- 3.2.3 Provide access to Government facilities, personnel, documents, and publications considered essential to the Contractor's effort under the contract.
- 3.2.4 Schedule and conduct in-progress reviews either at the Contractor's facility or at Government facilities as necessary to monitor the Contractor's performance and provide comments and recommendations for the Contractor's use in finalizing services and deliverables.

3.3 SCHEDULE

Delivery schedules will be defined in each delivery order issued hereunder.

4.0 PERSONNEL

In order to perform the above services, the Contractor shall provide personnel who meet the personnel descriptions and qualifications for each labor categories specified in the contract.

4.1 PERSONNEL DESCRIPTIONS AND QUALIFICATIONS:

- 4.1.1 Key Personnel: The contractor shall provide key personnel whose experience and qualifications meet or exceed the minimum requirements specified for the key personnel categories annotated in the contract. Key personnel shall be full time employees of the contractor's firm and must be available to support this contract, when required to perform the work specified in delivery orders issued under the contract.
- 4.1.2 Non-Key Personnel: The labor categories annotated in the contract as non-key personnel are required under the resultant contract but are not considered key positions. Non-key personnel must be available to support this contract, when required to perform the work specified in delivery orders issued under the contract.

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5.0 **FACILITIES**

The services required under this contract (see Section 2.0) will usually be performed at the Contractor's facilities or a field location.

The Contractor shall have the capability to prepare or modify documents and drawings using software that is compatible with the following: AUTOCAD 11, AUTOCAD 12, WORDPERFECT 5.1, LOTUS 1-2-3, MICROSOFT WORD, MICROSOFT EXCELL, MICROSOFT ACCESS, MICROSOFT POWERPOINT, and Database, CAD, and Word processing documents related to INTERGRAPH stations.